MY ENERGY

MOBILE ENERGY SYSTEMS

Sine wave inverters with an integrated automatic charger	116 – 119
Inverters	120 – 129
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A firm hold on power supply

Things which are fun and provide comfort need energy, which isn't in unlimited supply when travelling. Both skill and foresight are called for to use the capacity of the on-board supply and external energy sources optimally. Mobile energy systems by Dometic and WAECO will provide you with the support you need. And ensure that you'll have the "juice" your appliances need even in remote locations.

In premium quality

- → Sine wave inverter with an integrated automatic charger
- → Sine wave inverters
- → Inverters with modified sine wave voltage
- → Smart inverters
- → IU0U automatic chargers
- → IU-charging converters
- → Petrol generators
- → Diesel generators
- → Gas generators

Sine wave inverter with an integrated automatic charger

NEW! WAECO CombiPower 2012/2024

No more energy problems on campsites with low electrical circuit protection! This intelligent symbiosis of inverter and battery charger compensates the limited power capacity of external energy sources using battery power, and if need be, takes command of the complete power supply.

Pages 116 – 119

ENERGY SUPPLIED!
WITH PROFESSIONAL ELECTRONIC ACCESSORIES

From chargers with inverters to mobile power supply

Enjoy the same home comforts on the road. The Dometic and WAECO “Mobile Energy Systems” range includes everything you need for perfect power supply on the road. For example, the “everyday luxury” of a 230-volt power socket on board: A comprehensive range of inverters makes it possible to operative even power-intensive electrical devices. IU0U chargers ensure your batteries are fully and gently charged. Six powerful generators which supply the air conditioner, for example, with continuous power in stationary mode let you enjoy complete independence from the mains or on-board power supply.

Inverters

WAECO SinePower, PerfectPower, PocketPower

230 volts on board – for laptops, espresso machines and more. Depending on the type of appliance, you can choose a WAECO inverter with modified sine voltage, or opt for a pure sine wave inverter.

Pages 120 – 129

Battery chargers

WAECO PerfectCharge

This comprehensive range covers a wide scope of applications. WAECO PerfectCharge automatic chargers with IU0U characteristics have been designed for fast and gentle charging of gel, AGM and wet batteries.

Pages 130 – 135

Generators

Dometic generators

Mobile power generators by Dometic provide energy where mains power is unavailable.

Pages 138 – 141

Contents, specifications and availability are subject to change due to the technical improvement.

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WAECO CombiPower

230 volts any time!

WAECO by Dometic GROUP

Intelligent symbiosis of inverter and battery charger. For perfect mobile energy management.

- Pure sine wave voltage for sensitive appliances
- UPS function (Uninterrupted power supply)
- Power support function (Support for the limited power capacity of external energy sources using battery power)
- Battery charger with 6-step charging characteristics – adjustable charging voltage
- Convenient remote control

UPS FUNCTION

UPS function

Interruption-free operation of all appliances – even on campsites with low electrical circuit protection

Easy-to-use remote control for activating and controlling the functions

All connections and switches on one side

Contents, specifications and availability are subject to change due to the technical improvement.

Contents, specifications and availability are subject to change due to the technical improvement.

CombiPower features:

1) **Battery +** connection
2) **Battery –** connection
3) Outputs for temperature sensor CAN bus, RS232, remote control
4) DIP switches for configuration
5) Separate starter battery connection +5 A
6) ON/OFF switch
7) Outputs for 12/230 volts
8) Cable fixing bar
9) GND connection

UPS function

WAECO COMBIPOWER – SINE WAVE INVERTER AND AUTOMATIC CHARGER IN ONE

Problems with limited mains supply on campsites or parking spaces? The new WAECO CombiPower puts an end to this stress, and instead offers maximum independence in terms of power supply. The intelligent combination of inverter and automatic charger monitors the input mains voltage and reacts to the specific situation. This is how it supports the limited power capacity of external energy sources using battery power **(PSF)**. If the external power source fails altogether, the inverter switches on automatically **(UPS function)** and supplies the appliances connected with pure sine wave voltage. 6-step, gentle recharging and adaptive power distribution for the battery charger: Its charging power depends on the preset current limiter and on the effective 230-volt consumption.

Power sharing

→ Charging current regulation allowing for the preset current limiter and the effective 230-volt power consumption.

Power Support Function (PSF)

→ Supports a limited mains hook-up using the inverter. Should – e.g. when starting the air conditioner – more energy be required than the individually adjustable mains input fuse permits, it is obtained from the battery.

UPS function – Uninterrupted power supply

→ If the external energy source fails, the inverter supplies the appliances which are connected to the power support output. The devices connected to the power sharing output switch off. The operating time of the inverter can be limited to prevent unintentional discharge of the battery.

WAECO by Dometic GROUP

Contents, specifications and availability are subject to change due to the technical improvement.

The compact device is perfectly equipped for installation: Mounting rails on the right and left, each with two pre-drilled holes, all connections are easily accessible.

The control unit/remote control is installed separately.

NEW! WAECO CombiPower 2012/2024

3.30

Sine wave inverter with integrated automatic charger, 12 or 24 volts/2000 watts. Boosts the external mains powers supply with energy from the battery

→ Weight: 14 kg
→ W x H x D: 490 x 145 x 285 mm

Sine wave inverter
→ Input voltage: 12 volts or 24 volts
→ 2000 watts continuous power
→ 3000 watt peak output for 3 sec. for high start-up power
→ Automatic earthing for the function of an RCD circuit breaker

Automatic charger
→ Charging voltage: 30 – 100 A, adjustable
→ Transfer current: 50 A (230 volts)
→ 6-step charging characteristics with conditioning function
→ 2nd charger output for starter battery 5 A

Interfaces
→ CAN bus for power management
→ Remote control
→ RS232
→ Battery temperature sensor
→ External fault contact

CombiPower 2012 // 12 volts // Ref. No.: 9102600104
CombiPower 2024 // 24 volts // Ref. No.: 9102600105

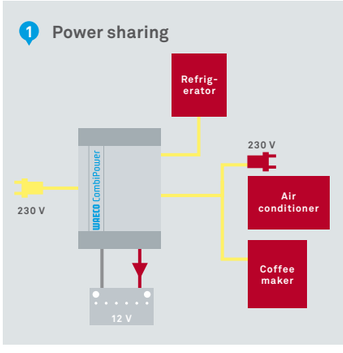
Remote control

Included in delivery

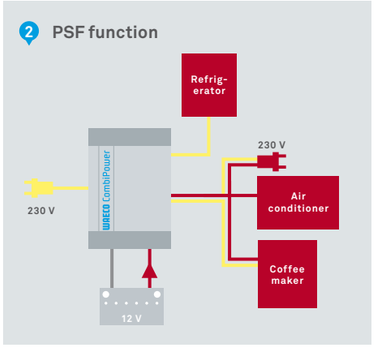
→ W x H x D: 92 x 30,5 x 92 mm
→ Cable length: 7.5 m

1) 2-line display
2) Function LED displays
3 + 4 + 5) Program menu buttons

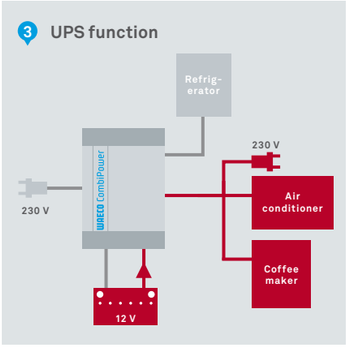
Examples of application situations



Connected to an external power connection, which supplies all 230-volt appliances with power. The supply battery is charged simultaneously.



Connected to an external power connection with insufficient capacity to supply the three appliances when switched on. The integrated inverter supplies the additional capacity required to operate the appliances.



No external power connection. CombiPower obtains the power for the connected appliances from the battery. The integrated inverter converts it into pure 230-volt AC.

Contents, specifications and availability are subject to change due to the technical improvement.

INVERTERS FROM XS TO XXL
MOBILE “POWER SOCKETS”

Whether it’s a car, motorhome or a boat – it makes sense to have 230 volts on board your leisure vehicle. After all, enjoying your holiday means being able to use the electrical gadgets you are used to. The problem is they work on 230 volt sockets. Here the vehicle battery or leisure battery can be the power source for the on-board system. How do you turn 12 or 24 volts direct current into 230 volt AC? Quite simply: by using a WAECO inverter. The comprehensive range of inverters has been tailored to suit a variety of applications. It accounts for all your needs – if you just want a reasonably priced compact unit to run your laptop or if you are often on the road and would like to run your microwave or espresso machine using an inverter. All units feature outstanding quality and a contemporary, user-friendly design.

WAECO
by Dometic GROUP

Minimal power requirements for some electrical appliances

Device	Power rating	Quality of the output voltage
Coffee maker (filter)	800 – 1500 watts	modified sine wave voltage
Coffee maker (pads)	1200 – 1600 watts	pure sine wave voltage
Espresso machine	1200 – 1600 watts	pure sine wave voltage
microwave oven	1000 – 1600 watts	modified sine wave voltage
Toaster	1000 – 1500 watts	modified sine wave voltage
Kettle	1000 – 1500 watts	modified sine wave voltage
Reading lamp	50 – 100 watts	modified sine wave voltage
Energy-saving bulb	10 – 20 watts	pure sine wave voltage
Fluorescent tubes	50 – 100 watts	pure sine wave voltage
Audio/video device	100 – 200 watts	pure sine wave voltage
Laptop computer	100 – 200 watts	modified sine wave voltage
Power drill/circular saw	500 – 1500 watts	modified sine wave voltage
Vacuum cleaner	1000 – 1600 watts	modified sine wave voltage
Electric toothbrush	50 watt	pure sine wave voltage

Example:
→ Largest appliance on board is a toaster with 1400 watts
→ The technically most demanding appliance is an electric toothbrush with 50 watt output

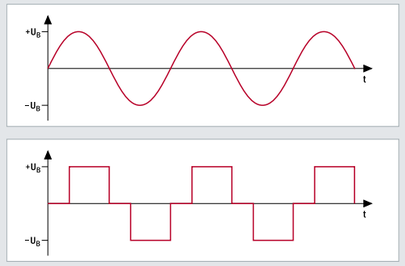
Our recommendation:
A sine wave inverter with at least 1400 watts:
WAECO SinePower MSP 1512

Alternatively:
WAECO PerfectPower PP 2002 for the toaster and an additional sine wave inverter SinePower MSP 162 for the toothbrush

Pure or modified sine wave voltage?

Pure sine wave voltage
The voltage is precisely controlled by a microprocessor.
The result: a clean sine wave voltage, like that from a home power socket
→ **WAECO SinePower sine wave inverters (p. 122 – 126)**

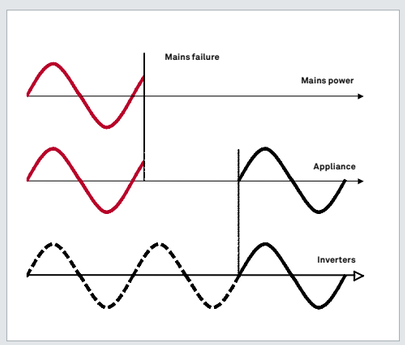
Modified sine wave voltage
The voltage produces a stepped curve simulating a pure sine wave.
The result: an output voltage of stable amplitude and frequency
→ **WAECO PerfectPower inverters (p. 127 – 128)**



What are the advantages of a mains priority circuit with voltage synchronisation?

All larger inverters in the PerfectPower and SinePower series feature an integrated mains priority circuit. This automatically gives priority to mains power as soon as it is available. Consequently, the inverter is switched off and the battery saved as soon as your boat or motorhome has access to an external mains supply.

Mains priority circuit with voltage synchronisation
All high-performance inverters of the WAECO SinePower series have been equipped with this technical highlight. Here’s why it makes sense. Many 230-volt appliances depend on an uninterrupted power supply. Moreover, it is vital to ensure a “smooth” voltage switchover, which is exactly what the MSP 702 to 2524 sine wave inverters provide. In these units the inverter voltage is synchronised to match the mains voltage, and the switchover takes place in a fraction of a second.



CARAVANING
DESIGN AWARD 2008/2009
INNOVATIONS FOR NEW MOBILITY

Technical features of the high-performance sine wave inverters:

1) Battery – connection
2) Battery + connection
3) **DIP** switches for configuration
4) Mains input fuse
5) Output for remote control 1
6) Output for remote control 2 (RS232)
7) Mains input socket
8) Inverter output socket
9) Earth connection
10) Main switch (On/Off/Remote)

WAECO SinePower
INVERTERS WITH PURE SINE WAVE VOLTAGE

Prize-winning prior to market launch: it hardly comes as a surprise that the SinePower inverter series has been able to convince the most demanding jurors. With continuous power ratings of 700 watts and more, they clearly come up to professional standards. Delivering pure sine wave voltage, they are the best possible choice for highly sensitive and powerful electrical appliances. They meet industry standards and combine ultimate user comfort with invaluable technical features. The mains supply priority circuit with voltage synchronisation, for example, switches to the mains power as soon as it is available and ensures uninterrupted voltage supply to the connected appliances with a smooth switch-over. Or the automatic activation of the “sleep mode” when no 230-volt appliances are being operated – saving energy and reducing the strain on the on-board battery!

WAECO
by Dometic GROUP

Contents, specifications and availability are subject to change due to the technical improvement.

Display

A particularly well-designed detail including the main switch (ON/OFF/Remote) and three LEDs to indicate the operating status, power output and input voltage range. The display is integrated in the unit at a 45° angle so that it can easily be checked from various positions.

Sleep mode

If there are no 230-volt appliances being operated, the sine wave inverter switches automatically to sleep mode to avoid straining the vehicle battery.

Cable organiser

With cable guides ready at hand and all connections on one side, everything can be kept nice and neat.

DIP switches

Using the DIP switches you can activate the power-save mode and set the desired output rating. When a connected appliance requires an output higher than the set value, the inverter will run in normal mode. When the output is lower than the one set, it will run in power-save mode.

Clip-on mounts

Individually adjustable clip-on mounts permit adaptation to special installation requirements with perfect results. Also included: a mounting plate, especially helpful for (vertical) mounting of the heavier units.

Optional extras

Two remote control models make the assets of the SinePower sine wave inverters complete. You can choose the inexpensive standard model or opt for the high-end version – both are suitable for switchboard mounting.

Contents, specifications and availability are subject to change due to the technical improvement.

The advantages of the high-performance sine wave inverters:

- → Microprocessor-controlled electronics for pure sine wave voltage
- → Integrated mains priority circuit with voltage synchronisation
- → Overload and short-circuit protection
- → RS232 connection for remote control or computer, and a connection for an external ON/OFF switch
- → Individually adjustable clip-on mounts
- → Exhaust air adapter

WAECO SinePower MSP 702 / MSP 704 3.30

→ **Continuous output: 700 watts**
→ Peak output: 1400 watt

MSP 702 // 12 volts // Ref. No.: MSP700-012 // Ref. No. UK: 9102600020
MSP 704 // 24 volts // Ref. No.: MSP700-024 // Ref. No. UK: 9102600021

WAECO SinePower MSP 1012 / MSP 1024

→ **Continuous output: 1000 watts**
→ Peak output: 2000 watt

MSP 1012 // 12 volts // Ref. No.: MSP1000-012 // Ref. No. UK: 9102600008
MSP 1024 // 24 volts // Ref. No.: MSP1000-024 // Ref. No. UK: 9102600009

WAECO SinePower MSP 1512 / MSP 1524

→ **Continuous output: 1500 watts**
→ Peak output: 3000 watt

MSP 1512 // 12 volts // Ref. No.: MSP1500-012 // Ref. No. UK: 9102600010
MSP 1524 // 24 volts // Ref. No.: MSP1500-024 // Ref. No. UK: 9102600011

WAECO SinePower MSP 2012 / MSP 2024

→ **Continuous output: 2000 watts**
→ Peak output: 4000 watt

MSP 2012 // 12 volts // Ref. No.: MSP2000-012 // Ref. No. UK: 9102600014
MSP 2024 // 24 volts // Ref. No.: MSP2000-024 // Ref. No. UK: 9102600015

WAECO SinePower MSP 2512 / MSP 2524

→ **Continuous output: 2500 watts**
→ Peak output: 5000 watts

MSP 2512 // 12 volts // Ref. No.: MSP2500-012 // Ref. No. UK: 9102600016
MSP 2524 // 24 volts // Ref. No.: MSP2500-024 // Ref. No. UK: 9102600017

FOR THE HIGHEST DEMANDS

Where other inverters pack up, the WAECO SinePower high-performance inverters are just getting going. Pure 230-volt AC even for highly sensitive, power-intensive appliances – no problem. Models with up to 2500 watt continuous power will reveal an unlimited range of applications, and will keep you on the safe side in every (usage) situation. The operating convenience of these high-quality units is tremendous, and can even be enjoyed from afar: simply connect one of the two remote controls which are available as accessories. Both remote controls are suitable for switchboard mounting.

Remote controls

WAECO SinePower Accessories 3.30

MCR-7 (for MSP 702 to MSP 2524)
→ W x H x D: 130 x 120 x 25 mm
→ Weight: 400 g
→ Cable length: 7.5 m
→ Low-voltage, over-voltage, overheat and overload indicated by red LEDs, stand-by and power on indicated by green LEDs

Ref. No.: MCR-7

MCR-9 (for MSP 162 to MSP 2524)
→ W x H x D: 58 x 72 x 28 mm
→ Weight: 40 g
→ Cable length: 7.5 m
→ Power on/off indicated by red LED

Ref. No.: MCR-9

WAECO
by Dometic GROUP

Contents, specifications and availability are subject to change due to the technical improvement.

Contents, specifications and availability are subject to change due to the technical improvement.

WAECO SinePower MSP 162

The benefits are obvious:

- Microprocessor-controlled electronics for pure sine wave voltage
- Overload and short-circuit protection
- Can be switched on/off by external switch
- Output for remote control
- Individually adjustable clip-on mounts
- 12- or 24-volt cigarette lighter plug **(SinePower MSP 162 / MSP 164)**

A “garage” for 12- or 24-volt plugs on MSP 162 and MSP 164 models

Back with output for remote control

Display with main switch and LEDs

Individually adjustable clip-on mounts

WAECO SinePower – SINE WAVE INVERTERS UP TO 350 WATTS

Even the “smaller” SinePower sine wave inverters feature the distinctive design of WAECO electronics. Their continuous output of 150 or 350 watts is fully adequate for a multitude of sensitive appliances, which they supply with pure 230-volt AC. Convenient details include adjustable mounts, an output for connecting a remote control and an external ON/OFF switch.

WAECO SinePower MSP 162 / MSP 164 3.30

- **Continuous output: 150 watts**
- Peak output: 300 watts
- 12- or 24-volt cigarette lighter plug

MSP 162 // 12 volts // Ref. No.: MSP160-012 // Ref. No. UK: 9102600012
MSP 164 // 24 volts // Ref. No.: MSP160-024 // Ref. No. UK: 9102600013

WAECO SinePower MSP 352 / MSP 354 3.30

- **Continuous output: 350 watts**
- Peak output: 700 watts

MSP 352 // 12 volts // Ref. No.: MSP350-012 // Ref. No. UK: 9102600018
MSP 354 // 24 volts // Ref. No.: MSP350-024 // Ref. No. UK: 9102600019

Remote control

WAECO SinePower Accessories 3.30

MCR-9 (MSP 162 to MSP 2524)

- W x H x D: 58 x 72 x 28 mm
- Weight: 40 g
- Cable length: 7.5 m

Ref. No.: MCR-9

WAECO PerfectPower PP 152

The benefits are obvious:

- Also suitable for appliances with PFC control
- Reverse pole protection by exchangeable fuses
- Can be switched on/off by external switch
- Individually adjustable clip-on mounts
- 12- or 24-volt cigarette lighter plug **(PerfectPower PP 152 / PP 154)**

Front:
Earthed safety socket and LEDs for function check

Mounting aid:
Individually adjustable clip-on mounts

Back:
ON/OFF switch and outlet for an external ON/OFF switch

WAECO PerfectPower – INVERTERS WITH MODIFIED SINE WAVE VOLTAGE

High product quality, a distinctive look, top technology, numerous comfort features: the WAECO PerfectPower series inverters provide everything a premium appliance should. The units up to 550 watts are particularly light and compact. They turn 12- or 24-volt battery voltage into a sine-wave-like 230-volt AC, which is fully adequate for a multitude of applications. The new inverter generation demonstrates great potential. Take installation for instance, adjustable clip-on mounts allow for perfect adaptation to individual needs. For those looking for extra comfort and prefer activating their inverter from the dashboard, there is an additional outlet for an external switch.

WAECO PerfectPower PP 152 / PP 154 3.18

- **Continuous output: 150 watts**
- Peak output: 350 watts
- 12- or 24-volt cigarette lighter plug

PP 152 // 12 volts // Ref. No.: PP152
Ref. No. UK: PP152/UK
PP 154 // 24 volts // Ref. No.: PP154
Ref. No. UK: PP154/UK

WAECO PerfectPower PP 402 / PP 404 3.18

- **Continuous output: 350 watts**
- Peak output: 700 watts

PP 402 // 12 volts // Ref. No.: PP402
Ref. No. UK: PP402/UK
PP 404 // 24 volts // Ref. No.: PP404
Ref. No. UK: PP404/UK

WAECO PerfectPower PP 602 / PP 604 3.18

- **Continuous output: 550 watts**
- Peak output: 1100 watts

PP 602 // 12 volts // Ref. No.: PP602
Ref. No. UK: PP602/UK
PP 604 // 24 volts // Ref. No.: PP604
Ref. No. UK: PP604/UK

WAECO PerfectPower PP 2002

The benefits are obvious:

- Integrated mains priority circuit
- High peak output for especially powerful appliances
- Overload and short-circuit protection
- Can be switched on/off by external switch
- Output for remote control
- Individually adjustable clip-on mounts

Nice and neat: all cables on the back

Front with input and mains input fuse

WAECO PerfectPower – HIGH-PERFORMANCE INVERTERS

Microwave ovens, toasters and vacuum cleaners are real “power burners”. On-board operation is no problem however with a high-performance inverter from the WAECO PerfectPower series. The 1000- or 2000-watt models generate a sine-wave-like 230-volt alternating voltage for particularly powerful appliances. User benefits add up to an all-round treat including perfect design, premium quality, and a variety of extras for enhanced comfort.

Just take the mains priority circuit, designed to switch over to mains power as soon as it is available. Or the soft-start function, which ensures gentle starting even for powerful appliances. Cable organisers, exhaust air adapter, outputs for remote control and external ON/OFF switch, adjustable mounts, mounting plate – nothing has been left to chance!

WAECO PerfectPower PP 1002 / PP 1004 3.18

- **Continuous output: 1000 watts**
- Peak output: 2000 watts

PP 1002 // 12 volts // Ref. No.: PP1002 // Ref. No. UK: 9102600003
PP 1004 // 24 volts // Ref. No.: PP1004 // Ref. No. UK: 9102600004

WAECO PerfectPower PP 2002 / PP 2004 3.18

- **Continuous output: 2000 watts**
- Peak output: 4000 watts

PP 2002 // 12 volts // Ref. No.: PP2002 // Ref. No. UK: 9102600005
PP 2004 // 24 volts // Ref. No.: PP2004 // Ref. No. UK: 9102600006

Remote control 3.18

MCR-9

- W x H x D: 58 x 72 x 28 mm
- Weight: 40 g
- Cable length: 7.5 m

Ref. No.: MCR-9

More optional extras on page 142 – 149.

Contents, specifications and availability are subject to change due to the technical improvement.

The benefits are obvious:

- Ideal for mobile operation of notebooks
- Lightweight and compact
- Overload and short-circuit protection
- Cigarette lighter plug
- USB charging port
- Mounting bracket
- Earthed safety socket on the **TSI 102**

WAECO PocketPower – INVERTERS IN POCKET-SIZE FORMAT

Sales representatives, craftsmen, technical service crews – more and more business travellers depend on their laptops. Mobile computers work on limited battery power. So they are likely to let you down when you need them most. The solution: connected in the line between the laptop and the cigarette lighter, a PocketPower smart inverter puts you on the safe side. It takes the power it needs from the 12-volt car battery to ensure hassle-free operation of your mobile computer by keeping its battery fully charged all the time. The inexpensive PocketPower SI 102 generates a sine-wave-like 230-volt alternating voltage, which is perfectly adequate for many applications. The PocketPower TSI 102 is the best choice to ensure the safe and smooth operation of highly sensitive electrical appliances: its pure sine wave voltage, earthed safety socket and other comfort features place this product in a class of its own.

WAECO PocketPower SI 102 3.29

- **Modified sine wave voltage**
- **Continuous power: 100 watts**
- Continuous power: 200 watts
- Mounting bracket
- Euro socket
- Weight: 282 g
- W x H x D: 67 x 43 x 125 mm

Ref. No.: 2222600001

WAECO PocketPower TSI 102 3.29

- **Pure sine wave voltage**
- **Continuous power: 120 watts**
- Continuous power: 200 watts
- Mounting bracket
- Earthed safety socket
- Weight: 650 g
- W x H x D: 92 x 64 x 180 mm

Ref. No.: 2222600002

Contents, specifications and availability are subject to change due to the technical improvement.

IU0U CHARGING TECHNOLOGY BY WAECO … GIVE YOUR BATTERIES A LONGER LIFE!

Starter batteries and supply batteries are designed for different tasks. To start the engine, starter batteries must initially supply a high current level and will then serve as an energy buffer with smaller partial cycles. Supply or on-board batteries, in contrast, are discharged at lower current levels over longer periods of time and then charged again. This means they are subjected to considerably higher loads. Optimum charging technology is therefore the key to success. IU0U battery chargers from WAECO ensure your batteries have a longer life, and prevent battery damage. They provide optimum charging for all types of leisure batteries (gel, AGM and wet), because they charge quickly and gently at the same time.

Why fully charging the battery regularly is important:

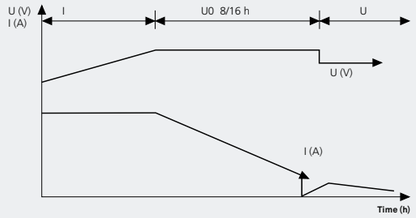
You expect a battery to have full capacity and high starting currents. However, it can only supply these when it is properly cared for. This includes regular recharging. This occurs during the journey, allowing the battery to serve its purpose for a number of days. A 100% full charge, as battery manufacturers stipulate, usually can't be attained this way. However it is still imperative to prevent sulphation and premature ageing of the battery. Using a WAECO battery charger with IU0U charging characteristics solves the problem, charging the battery gently and to 100 % capacity. We recommend fully charging your battery at least once a month, which will maintain its condition at the same time. If you are not planning to use your leisure vehicle for a while, you should fully charge the battery beforehand.

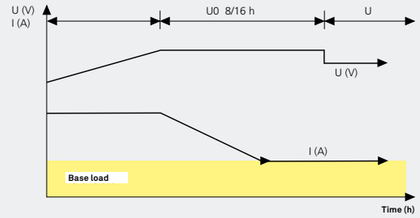
IU0U charging characteristics

This fast and gentle charging technology represents an extension of the well-proven IU charging curve. It includes the additional time constant 0 and a further constant voltage U for compensation charging. As with IU charging characteristics, charging is initially performed with a constant current. When the gas development voltage has been reached, the voltage is maintained at the same level until the charging current has fallen to a minimum. At that point the charging voltage is reduced to the float charging level – the charging process is completed.

Limited time of the U0 phase

To prevent overcharging when power is drawn from the battery while charging, the duration of the U0 phase is limited.
Ideally, the system should switch from the main charging voltage U0 to the float charging voltage U when the battery is 100 % charged. A good indication for a fully charged battery is a low current intake.
If an electrical appliance exerts a current load on the battery during the charging phase (e.g. when a light is on), the charging current will never reach the low current value required by the system to switch over to the U phase. As the U0 phase is limited to a finite time, the switch-over to the U phase occurs regardless of the charging voltage level. This makes it impossible to overcharge the battery.



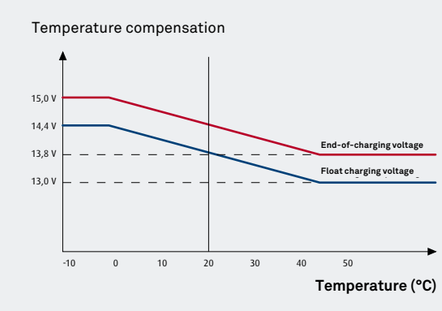


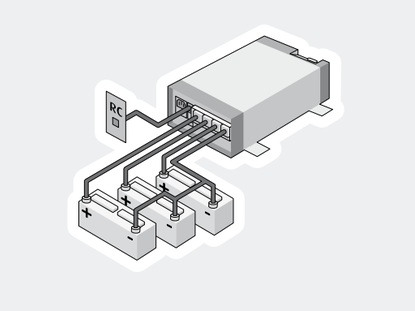
The advantages of a temperature sensor

A temperature sensor is recommended when battery charging takes place in varying or extreme ambient temperatures. This is because the optimal charging voltage for a battery largely depends on the temperature conditions. In cold batteries, for instance, the gas development voltage is higher than in warm batteries. The sensor is fitted on the battery or close to it and measures the temperature. Depending on the result, the battery charger adjusts the main charging and float charging voltage. At high temperatures the voltage is reduced to prevent battery gassing. At low temperatures the voltage is increased to improve the battery charge. The diagram shows how the temperature sensor adjusts the charging voltage to the temperature of the battery.
The TF-500 temperature sensor (p. 135) is available as an optional accessory for all PerfectCharge IU0U charger models of series IU 152A to IU 802A.

Simultaneous charging of several batteries

When two or more batteries are used independently of one another, the load on them will be different and so will the required extent of recharging.
This is taken into account by our double and triple charger models (series IU 152A to IU 802A, p. 134 – 135). These units feature two or three battery outputs, and an additional one for charging the starter battery.
The chargers incorporate diodes to divide the charging current and prevent charge compensation between the batteries. While charging, the weaker battery is initially brought to the charge of the stronger one. Both (or all three) batteries are then charged at the same voltage level until the full charge is reached. Naturally, it is also possible to connect just one or two batteries to a double or triple charger.





Technical features of the IU0U automatic chargers:

1) IEC socket
2) Output for temperature sensor
3) Output for remote control
4) DIP switches for configuring the charging characteristics
5) Battery + connections for simultaneous charging of up to 3 batteries
6) Battery – connection

CHARGING TECHNOLOGY IN A CLASS OF ITS OWN
PERFECTION IN EVERY DETAIL

Premium quality, long service life, award-winning design ... nothing has been left to chance when it comes to the current generation of PerfectCharge battery chargers. They leave nothing to be desired, each and every application is accounted for. Whether multi-stage charging characteristics, adjustable charging capacity, overcharging protection, conditioning/refreshing function, sleep mode, IEC socket, ease of installation – these and many other details contribute to the high quality of the WAECO automatic chargers.

Display

A particularly well-designed detail including the main switch (ON/OFF/Sleep mode) and three LEDs to indicate the operating status, power output and input voltage range. The display is integrated in the unit at a 45° angle so that it can easily be checked from various positions.

DIP switches

Four DIP switches to select the optimum charging characteristics – this is where charging voltages and times can be configured for wet, gel and AGM batteries according to the manufacturer's specifications. Conditioning/refreshing of "low" batteries is possible, too.

Cable organiser

With cable guides ready at hand and all connections on one side, everything can be kept nice and neat.

Sleep mode

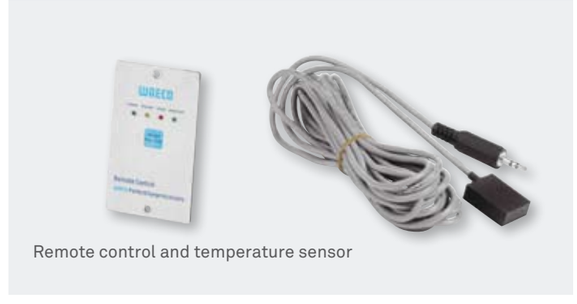
In the sleep mode function, the charging capacity reduces by half and the ventilation is switched off. In this way the battery charger operates silently and can even be used on campsites with low electrical circuit protection due to its reduced current consumption.

Clip-on mounts

Individually adjustable clip-on mounts permit adaptation to special installation requirements with perfect results. Also included: a mounting plate, especially helpful for (vertical) mounting of the heavier units.

Optional extras

Two extras to make the assets of the PerfectCharge automatic battery charger complete: the remote control enhances operating comfort. A temperature sensor is recommended when battery charging operations have to be carried out in widely varying or extreme ambient temperatures. See further details on page 135.



Remote control and temperature sensor

WAECO PerfectCharge IU 802A

CARAVANING DESIGN AWARD 2008/2009
INNOVATIONS FOR NEW MOBILITY

The advantages of the IU0U automatic chargers:

- Multi-stage IU0U curve, optimised for charging wet, gel and AGM batteries
- Prevents battery overcharging by limiting time of the U0 phase (8/16 h)
- Quick charging without power fluctuations
- Sleep mode
- Individually adjustable clip-on mounts
- Mounting aid with cable organiser
- Exhaust air adapter
- Remote control and temperature sensor as accessories

COMPREHENSIVE RANGE FOR PROFESSIONAL AND ENTRY-LEVEL USE

WAECO PerfectPower IU0U automatic chargers are suitable for all supply batteries (gel, AGM and wet batteries). They provide fast and gentle charging, a prerequisite for a long battery life. The high-performance compact units are available in models from 15 A to 80 A and as double or triple chargers for simultaneous charging of several batteries. The WAECO PerfectCharge IU 812 makes for a tried and tested and favourably priced entry-level model to IU0U charging technology. Designed for charging supply batteries up to 100 Ah and therefore ideal for the battery in a manoeuvring aid, for example.

IU0U automatic chargers in premium quality
For simultaneous charging of up to 3 batteries

Charging of 1 battery + starter battery
WAECO PerfectCharge IU 152A 3.16

- Battery output: **One, plus 1 A output for a starter battery**
- Max. battery capacity: 150 Ah
- **Max. charging current: 15 A**
- Weight: approx. 3.1 kg
- W x H x D: 175 x 91 x 310 mm

230 V › 12 V

IU 152 // 12 volts // Ref. No.: 2222500001 // Ref. No. UK: 9102500006

Charging of 2 batteries + starter battery
WAECO PerfectCharge IU 252A / IU 154A 3.16

- Battery output: **Two, plus 1 A output for a starter battery**
- Max. battery capacity: 300 Ah **(IU 252A),** 200 Ah **(IU 154A)**
- **Max. charging current: 25 A (IU 252A), 15 A (IU 154A)**
- Weight: approx. 3.8 kg
- W x H x D: 208 x 96 x 332 mm

230 V › 12 V
230 V › 24 V

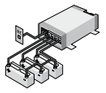
IU 252A // 12 volts // Ref. No.: 2222500002 // Ref. No. UK: 9102500007
IU 154A // 24 volts // Ref. No.: 2222500003 // Ref. No. UK: 9102500008

Charging of 3 batteries
WAECO PerfectCharge IU 452A / IU 254A 3.16

- Battery output: **Three**
- Max. battery capacity: 500 Ah **(IU 452A),** 300 Ah **(IU 254A)**
- **Max. charging current: 45 A (IU 452A), 25 A (IU 254A)**
- Weight: approx. 5.5 kg
- W x H x D: 208 x 96 x 418 mm

230 V › 12 V
230 V › 24 V

IU 452A // 12 volts // Ref. No.: 2222500004 // Ref. No. UK: 9102500009
IU 254A // 24 volts // Ref. No.: 2222500005 // Ref. No. UK: 91025000010

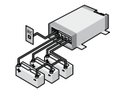


Charging of 3 batteries
WAECO PerfectCharge IU 802A / IU 404A 3.16

- Battery output: **Three**
- Max. battery capacity: 800 Ah **(IU 802A),** 400 Ah **(IU 404A)**
- **Max. charging current: 80 A (IU 802A), 40 A (IU 404A)**
- Weight: approx. 6.5 kg
- W x H x D: 208 x 96 x 453 mm

230 V › 12 V
230 V › 24 V

IU 802A // 12 volts // Ref. No.: 2222500006 // Ref. No. UK: 9102500016
IU 404A // 24 volts // Ref. No.: 2222500007 // Ref. No. UK: 9102500017



Optional extras

WAECO PerfectCharge Accessories 3.16

Remote control for IU0U automatic chargers in series IU 152A to IU 802A

- W x H x D: 65 x 110 x 25 mm (22 mm installation depth)
- LED for status indication, ON/OFF switch for sleep mode
- Scope of delivery: Connection cable, approx. 5 m

Ref. No.: 901-RC

WAECO PerfectCharge Accessories 3.16

Temperature sensor with 5 m supply cable

- The IU0U chargers in series IU 152A to IU 802A can be equipped with a temperature sensor, available as an optional extra.

Ref. No.: TF-500

Great performance, great price.
WAECO PerfectCharge IU 812

IU0U automatic charger, 12 volts
Optimal charging technology for 12-volt wet, gel and AGM batteries

- Input voltage: 230 volts DC
- Input voltage range: 180 – 253-volt AC/50 – 60 Hz
- Nominal battery voltage: 12 volts DC
- End-of-charging voltage: 14.4 volts DC
- Float charging voltage: 13.6 volts DC
- Max. battery capacity: 100 Ah
- Max. charging current: 8 A
- Operating temperature: 0 °C to +50 °C

Ref. No.: 808-012/1

WAECO IU0U automatic charger: perfect technology for charging supply batteries up to 100 Ah

The IU charging converter is simply integrated into the wiring of the starter and leisure batteries. Raising the charging voltage to 14.2 volts, it ensures optimal charging during the drive.

The converter can be switched on or off by an external control signal, e.g. the D+ from the generator. You can also use a 12-volt switch.

Moreover, the charging converter stabilises the voltage supply. This makes it ideal for sensitive 12-volt appliances (e.g. navigation systems, LCD monitors), which require a constant and stable voltage.

To benefit from the stabilising effect, the IU charging converter is integrated into the supply cord of the appliance. The unit compensates for over- and under-voltage in a range between 8 – 16 volts, thus preventing failure of or damage to the appliance.

IU CHARGING CONVERTERS
BATTERY RECHARGE ON THE MOVE

Many vehicle owners expect the electric generator to completely recharge leisure batteries during the drive. When the battery is beginning to fail, however, they quickly realise it often doesn't work that way. The reason is insufficient cabling (supply cables too long, cross section too small), as frequently encountered in caravans. Electronics specialist WAECO has developed a neat solution for this problem: the PerfectCharge IU charging converter, which ensures optimal charging during the drive, **and is available in three performance categories.**

Charging converters and battery chargers in three performance categories, 8 A, 20 A and 40 A
Ideal for charging the leisure battery while driving

3.16

WAECO PerfectCharge DC08

WAECO PerfectCharge DC20

WAECO PerfectCharge DC40

WAECO PerfectCharge DC 08 / DC 20 / DC 40

- Input voltage: **12 volts DC**
- Input voltage range: 8 – 16 volts DC
- **Output current: 8 A (DC 08), 20 A (DC 20), 40 A (DC 40)**
- Output voltage: 14.2 volts DC ±0.1 volts
- Energy efficiency: up to 87 %
- Ripple & Noise: 20 mA
- Weight: **0.75 kg (DC 08), 1.2 kg (DC 20), 2.1 kg (DC 40)**
- W x H x D:
  115 x 70 x 100 (DC 08), 115 x 70 x 160 (DC 20), 115 x 70 x 270 (DC 40)
- Test mark: e-approved to Automotive EMC Directive

DC 08 // 8 A // 12 volts » 12 volts // Ref. No.: DC1212-08
DC 20 // 20 A // 12 volts » 12 volts // Ref. No.: DC1212-20
DC 40 // 40 A // 12 volts » 12 volts // Ref. No.: DC1212-40

WAECO by Dometic GROUP

The advantages of the IU charging converters:

- Gives the battery a full charge while driving
- It stabilises voltage for sensitive 12-volt devices
- High energy efficiency
- Electrically isolated output voltage
- Clean output voltage
- Parallel operation possible
- Additional ON/OFF input

Contents, specifications and availability are subject to change due to the technical improvement.

DOMETIC GENERATORS

Dometic generators ensure reliable power supply wherever mains power is unavailable. This makes them a must-have accessory for outdoor enthusiasts seeking maximum freedom and independence. High performance, modest fuel consumption and excellent product quality are the hallmarks of the entire series. Driven by petrol, diesel or gas engines, the tried and tested generators provide 230-volt power for use on the road or at the campsite. Ideal for operating your air conditioner when there's no mains hook-up around, they will also supply your kitchen gadgets, office equipment or power tools. All TEC models will come, as of now, with an additional comfort feature, the auto-start function. When this feature is enabled, the generators will automatically turn on to recharge the battery as soon it falls below a sufficient voltage level. Suitable places for installation of the compact units are the vehicle flooring or a storage compartment accessible from the outside. Operation is via the multi-information display included with each generator.

Dometic

Contents, specifications and availability are subject to change due to the technical improvement.

FOR NORMAL UNLEADED PETROL AND LIQUEFIED PETROLEUM GAS

The TEC 29 /29 LPG is the top-selling model in the Dometic generator range. Weighing only 44 kg and featuring a super-compact design, it is easily accommodated in or on the vehicle. Providing 2600 watts of continuous output, it is as powerful as the conventional predecessors, yet far quieter to run. High energy efficiency even at low temperatures or after a cold start, low fuel consumption. Available as a petrol version or a gas version.

Dometic TEC 29 3.39

2.6 kW generator for 230 volts alternating current, fuelled by **unleaded petrol**

- Output voltage: 230 volts AC ±1 % (continuous)/pure sine wave
- Max. starting current: 33 A
- Continuous output: 2600 watts, peak output: 2900 watts
- Weight: 44 kg
- W x H x D: 480 x 290 x 385 mm

Ref. No.: 9102900200

Optional extras

15-litre plastic tank, AG 101 // Ref. No.: 9102900009
20-litre stainless steel tank, AG 100 // Ref. No.: 9102900011
Hose set for AG 100/101, AG 150 // Ref. No.: 9102900003
Flexible metal hose 25 mm, AG 125 // Ref. No.: 9102900020

Dometic TEC 29LPG 3.39

2.6 kW generator for 230 volts alternating current, fuelled by **liquefied petroleum gas**

- Output voltage: 230 volts AC ±1 % (continuous)/pure sine wave
- Max. starting current: 33 A
- Continuous output: 2600 watts, peak output: 2900 watts
- Weight: 44 kg
- W x H x D: 480 x 290 x 385 mm

Ref. No.: 9102900179

Optional extra

Flexible metal hose 25 mm, AG 125 // Ref. No.: 9102900020

The benefits are obvious:

- High continuous output
- Suitable as a power source for all Dometic air conditioners
- Low consumption
- Parallel operation of 2 x TEC 29 (LPG) possible
- Remote control included
- **NEW:** Autostart function for automatic charging of batteries

Contents, specifications and availability are subject to change due to the technical improvement.

POWER PACK WITH DIESEL ENGINES

Specially designed for use in larger motorhomes and utility vehicles, the TEC 30EV provides powerful performance and scores with its record-breaking low fuel consumption of just 0.7 litres. The TEC 40D, which has been tried and tested to professional standards, is also economical. Both generators feature first-class noise insulation and operate extremely quietly.

Dometic TEC 30EV 3.39

2.5 kW generator for 230 volts alternating current, fuelled by diesel

- Output voltage: 230 volts AC ±1 % (continuous)/pure sine wave
- Max. starting current: 33 A
- Continuous output: 2500 watts, peak output: 2900 watts
- Weight: 70 kg
- W x H x D: 465 x 465 x 466 mm

Ref. No.: 9102900033

Optional extras

15-litre plastic tank, AG 101 // Ref. No.: 9102900009
20-litre stainless steel tank, AG 100 // Ref. No.: 9102900011
Hose set for AG 100/101, AG 150 // Ref. No.: 9102900003
Flexible metal hose 25 mm, AG 125 // Ref. No.: 9102900020

Dometic TEC 40D 3.39

3.5 kW generator for 230 volts alternating current, fuelled by diesel

- Output voltage: 230 volts AC ±1 % (continuous)/pure sine wave
- Max. starting current: 45 A
- Continuous output: 3500 watts, peak output: 3900 watts
- Weight: 96.5 kg
- W x H x D: 765 x 457 x 467 mm

Ref. No.: 9102900201

Optional extras

15-litre plastic tank, AG 101 // Ref. No.: 9102900009
20-litre stainless steel tank, AG 100 // Ref. No.: 9102900011
Hose set for AG 100/101, AG 150 // Ref. No.: 9102900003
Flexible metal hose 25 mm, AG 125 // Ref. No.: 9102900020

Dometic

Dometic TEC 40D

Diesel generators:

- High continuous output
- Suitable as a power source for all Dometic air conditioners
- Very low power consumption
- Parallel operation of 2 x TEC 30EV or 2 x TEC 40D possible
- Remote control included
- **NEW:** Autostart function for automatic charging of batteries

Contents, specifications and availability are subject to change due to the technical improvement.

ENOUGH “JUICE” FOR TWO DOMETIC AIR CONDITIONERS

A mobile power station! The petrol-fuelled T 4000H provides a generous 3500-watt continuous output – plenty of power for two Dometic motorhome air conditioners. Or for other powerful appliances which require 230-volts alternating current. The very favourably priced T 2500H is also fuelled by normal unleaded petrol. A reliable and economical unit with a compact design and relatively low weight.

Dometic T 2500H 3.39

2.0 kW generator for 230 volts alternating current, fuelled by unleaded petrol

- Output voltage: 230 volts AC ±10 % (continuous)/pure sine wave
- Max. starting current: 24 A
- Continuous output: 2000 watts, peak output: 2200 watts
- Weight: 50 kg
- W x H x D: 530 x 290 x 385 mm

Ref. No.: 9102900005

Optional extras

15-litre plastic tank, AG 101 // Ref. No.: 9102900009
20-litre stainless steel tank, AG 100 // Ref. No.: 9102900011
Hose set for AG 100/101, AG 150 // Ref. No.: 9102900003
Flexible metal hose 25 mm, AG 125 // Ref. No.: 9102900020
Battery charging regulator AG 111 // Ref. No.: 9102900014
Floor chimney // Ref. No.: 9102900023

Dometic T 4000H 3.39

3.5 kW generator for 230 volts alternating current, fuelled by normal unleaded petrol

- Output voltage: 230 volts AC ±10 % (continuous)/pure sine wave
- Max. starting current: 41 A
- Continuous output: 3500 watts, peak output: 3800 watts
- Weight: 102 kg
- W x H x D: 660 x 355 x 480 mm

Ref. No.: 9102900006

Optional extras

15-litre plastic tank, AG 101 // Ref. No.: 9102900009
20-litre stainless steel tank, AG 100 // Ref. No.: 9102900011
Hose set for AG 100/101, AG 150 // Ref. No.: 9102900003
Flexible metal hose 25 mm, AG 125 // Ref. No.: 9102900020
Battery charging regulator AG 111 // Ref. No.: 9102900014

Dometic

Unleaded petrol generators:

- High continuous output
- T 2500H: Sufficient power for running two Dometic air conditioners
- T 4000H: Sufficient power for running two Dometic air conditioners
- Remote control included

Dometic T 4000H

Contents, specifications and availability are subject to change due to the technical improvement.

Sine wave inverters with pure sine wave voltage

WAECO SinePower

3.30

	MSP 702 / MSP 704	MSP 1012 / MSP 1024	MSP 1512 / MSP 1524	MSP 2012 / MSP 2024	MSP 2512 / MSP 2524
Ref. No.	**MSP700-012** **MSP700-024**	**MSP1000-012** **MSP1000-024**	**MSP1500-012** **MSP1500-024**	**MSP2000-012** **MSP2000-024**	**MSP2500-012** **MSP2500-024**
Input voltage	12 V DC (10.5 – 15 V) 24 V DC (21 – 30 V)	12 V DC (10.5 – 15 V) 24 V DC (21 – 30 V)	12 V DC (10.5 – 15 V) 24 V DC (21 – 30 V)	12 V DC (10.5 – 15 V) 24 V DC (21 – 30 V)	12 V DC (10.5 – 15 V) 24 V DC (21 – 30 V)
Output voltage/curve	230 volts AC/ pure sine wave ∿	230 volts AC/ pure sine wave ∿	230 volts AC/ pure sine wave ∿	230 volts AC/ pure sine wave ∿	230 volts AC/ pure sine wave ∿
Output frequency (Hz)	50	50	50	50	50
Current consumption Sleep mode (A)	0.25/0.15	0.25/0.15	0.28/0.15	0.6/0.3	0.6/0.35
No-load currentinput (A)	1.2/0.6	1.25/0.65	1.4/0.7	2.3/1.1	2.4/1.5
Continuous output (watts)	700	1000	1500	2000	2500
Peak power (watts)	1400	2000	3000	4000	5000
Energy efficiency up to (%)	90/92	90/93	90/93	90/93	90/93
Size (W x H x D mm)	190 x 90 x 380	225 x 117 x 435	225 x 117 x 465	349 x 116 x 516	349 x 116 x 546
Weight (kg, approx.)	5.5	7.6	8.4	15.5	16.9
Mains priority circuit with voltage synchronisation	●	●	●	●	●
Test marks	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)
Type of protection	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21
Optional extra: DC connection cable					
Ref. No.	**9102700001**	**9102700002**	**9102700002**	**9102700003**	**9102700004**
Cable length (m)	1.5 (25 mm²)	1.5 (35 mm²)	31.5 (35 mm²)	1.0 (50 mm²)	1.0 (70 mm²)
Optional extra: MCR-9 standard remote control					
Ref. No.	**MCR-9**	**MCR-9**	**MCR-9**	**MCR-9**	**MCR-9**
Dimensions (W x H x D mm)	58 x 72 x 28	58 x 72 x 28	58 x 72 x 28	58 x 72 x 28	58 x 72 x 28
Cable length (m)	7.5	7.5	7.5	7.5	7.5
Optional extra: MCR-7 comfort remote control					
Ref. No.	**MCR-7**	**MCR-7**	**MCR-7**	**MCR-7**	**MCR-7**
Dimensions (W x H x D mm)	130 x 120 x 25	130 x 120 x 25	130 x 120 x 25	130 x 120 x 25	130 x 120 x 25
Cable length (m)	7.5	7.5	7.5	7.5	7.5

Sine wave inverters with pure sine wave voltage

WAECO SinePower – up to 350 watts

3.30

	MSP 162 / MSP 164	MSP 352 / MSP 354
Ref. No.	**MSP160-012** **MSP160-024**	**MSP350-012** **MSP350-024**
Input voltage	12 V DC (11 – 15 V) 24 V DC (22 – 30 V)	12 V DC (11 – 15 V) 24 V DC (22 – 30 V)
Output voltage/curve	230 volts AC/ pure sine wave ∿	230 volts AC/ pure sine wave ∿
Output frequency (Hz)	50	50
Current consumption Sleep mode (A)	—	—
No-load currentinput (A)	1.2/0.6	1.2/0.6
Continuous output (watts)	150	350
Peak power (watts)	300	700
Energy efficiency up to (%)	90	90
Size (W x H x D mm)	157 x 64 x 243	157 x 64 x 243
Weight (kg, approx.)	2	2.2
Mains priority circuit with voltage synchronisation	—	—
Test marks	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)
Type of protection	equivalent to IP 21	equivalent to IP 21
Optional extra: DC connection cable		
Ref. No.	—	—
Cable length (m)	—	—
Optional extra: MCR-9 standard remote control		
Ref. No.	**MCR-9**	**MCR-9**
Dimensions (W x H x D mm)	58 x 72 x 28	58 x 72 x 28
Cable length (m)	7.5	7.5
Optional extra: MCR-7 comfort remote control		
Ref. No.	—	—
Dimensions (W x H x D mm)	—	—
Cable length (m)	—	—

Sine wave inverter with an integrated automatic charger

WAECO CombiPower

3.30

	2012 / 2024
Ref. No. 12 V **Ref. No.** 24 V	**9102600104** **9102600105**
Size (W x H x D mm)	490 x 145 x 285
Weight (kg, approx.)	14
Test marks	CE, e-approved (EMC/automotive directive)
Type of protection	equivalent to IP 21

Sine wave inverter

Input voltage	12 V DC (10 – 16 V) 24 V DC (20 – 32 V)
Output voltage/curve	230 volts AC/ pure sine wave ∿
Output frequency (Hz)	50/60
Continuous output (watts)	2000
Peak output (watts, 3 s)	3000
Transfer output	230 V/50 A
Transfer time (ms)	< 10

Automatic charger

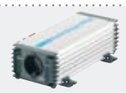
Charging characteristics	IU0U 6-step
Input voltage range	207 – 253 volts AC
Frequency range (Hz)	47 – 63
Adjustable charging voltage (A)	30 – 100 (12 V DC) 15 – 50 (24 V DC)
End-of-charging voltage (volts DC)	14.4 – 14.7 (12 V DC) 28.8 – 29.4 (24 V DC)
Float charging voltage (volts DC)	13.6 (12 V DC) 27.2 (24 V DC)
Second charging output (starter battery, A)	5
Cooling system	Speed variable fan

Contents, specifications and availability are subject to change in the interests of technical improvement.

Contents, specifications and availability are subject to change in the interests of technical improvement.

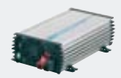
WAECO PerfectPower

3.18

Inverters with modified AC voltage	PP 152 / PP 154	PP 402 / PP 404	PP 602 / PP 604
			
Ref. No.	PP152 PP154	PP402 PP404	PP602 PP604
Input voltage	12 V DC (11 – 15 V) 24 V DC (22 – 30 V)	12 V DC (11 – 15 V) 24 V DC (22 – 30 V)	12 V DC (11 – 15 V) 24 V DC (22 – 30 V)
Output voltage/curve	230 volts AC/modified sine wave	230 volts AC/modified sine wave	230 volts AC/modified sine wave
USB output voltage	—	—	—
Output frequency (Hz)	50	50	50
No-load currentinput (A)	0.25	0.25	0.25
Continuous output (watts)	150	350	550
Peak power (watts)	350	700	1100
Cooling system	Fan	Fan	Fan
Energy efficiency up to (%)	90	90	90
Size (W x H x D mm)	129 x 71 x 177	129 x 71 x 192	129 x 71 x 237
Weight (kg, approx.)	0.84	0.99	1.4
Mains priority circuit	—	—	—
Test marks	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)
Type of protection	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21
Optional extra: DC connection cable			
Ref. No.	—	—	—
Cable length (m)	—	—	—
Optional extra: MCR-9 standard remote control			
Ref. No.	—	—	—
Dimensions (W x H x D mm)	—	—	—
Cable length (m)	—	—	—

WAECO PerfectPower – High-performance inverters

3.18

PP 1002 / PP 1004	PP 2002 / PP 2004
	
PP1002 PP1004	PP2002 PP2004
12 V DC (11 – 15 V) 24 V DC (22 – 30 V)	12 V DC (11 – 15 V) 24 V DC (22 – 30 V)
230 volts AC/modified sine wave	230 volts AC/modified sine wave
—	—
50	50
< 0.8	< 1.5
1000	2000
2000	4000
Fan	Fan
85	85
176 x 95 x 338	176 x 95 x 443
3.5	5
●	●
CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)
equivalent to IP 21	equivalent to IP 21
9102700005	9102700006
1.5 (35 mm²)	1.0 (50 mm²)
MCR-9	MCR-9
58 x 72 x 28	58 x 72 x 28
7.5	7.5

WAECO PocketPower – Inverters in pocket-size format

3.29

SI 102	TSI 102
2222600001	2222600002
12 V DC (11 – 15 V)	12 V DC (11 – 15 V)
230 volts AC/modified sine wave	230 volts AC/pure sine wave
5 volts/0.5 A	5 volts/0.5 A
50	50
< 0.4	< 0.8
100	120
200	200
Fan	Fan
90	90
67 x 43 x 125	92 x 64 x 180
0.282	0.65
—	—
CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)
—	—

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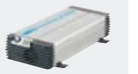
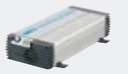
IU0U automatic chargers	WAECO PerfectCharge 3.16 IU 152A	IU 252A	IU 154A	IU 452A	IU 254A	IU 802A	IU 404A	WAECO PerfectCharge 3.16 IU 812
								
Ref. No.	2222500001	2222500002	2222500003	2222500004	2222500005	2222500006	2222500007	808-012/1
Battery outputs	One, plus 1 A output for a starter battery	Two, plus 1 A output for a starter battery	Two, plus 1 A output for a starter battery	Three	Three	Three	Three	One
Inputvoltage range	207 – 253 volts AC/ 50 – 60 Hz	207 – 253 volts AC/ 50 – 60 Hz	207 – 253 volts AC/ 50 – 60 Hz	207 – 253 volts AC/ 50 – 60 Hz	207 – 253 volts AC/ 50 – 60 Hz	207 – 253 volts AC/ 50 – 60 Hz	207 – 253 volts AC/ 50 – 60 Hz	180 – 253 volts AC/ 50 – 60 Hz
End-of-charging voltage	14.4/14.8 volts DC	14.4/14.8 volts DC	28.8/29.6 volts DC	14.4/14.8 volts DC	28.8/29.6 volts DC	14.4/14.8 volts DC	28.8/29.6 volts DC	14.4 volts DC
Float charging voltage	13.8 volts DC	13.8 volts DC	27.6 volts DC	13.8 volts DC	27.6 volts DC	13.8 volts DC	27.6 volts DC	13.6 volts DC
Maximum battery capacity (Ah)	150	300	200	500	300	800	400	100
U0 phase limited at (h)	8 or 16	8 or 16	8 or 16	8 or 16	8 or 16	8 or 16	8 or 16	—
Charging characteristics	—	—	—	—	—	—	—	IU0U with limit time of the IU0 phase
Max. starting current (A)	15	25	15	45	25	80	40	8
Operating temperature	0°C to +50°C	0°C up to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
Size (W x H x D mm)	175 x 91 x 310	208 x 96 x 332	208 x 96 x 332	208 x 96 x 418	208 x 96 x 418	208 x 96 x 453	208 x 96 x 453	120 x 70 x 200
Weight (kg, approx.)	3.1	3.8	3.8	5.5	5.5	6.5	6.5	0.9
IU0U characteristics	Multi-stage	Multi-stage	Multi-stage	Multi-stage	Multi-stage	Multi-stage	Multi-stage	Modified
Overload/short-circuit protection	●	●	●	●	●	●	●	●
Sleep mode	●	●	●	●	●	●	●	—
Adjustable mounts	●	●	●	●	●	●	●	—
Mounting aid with cable organiser	●	●	●	●	●	●	●	—
Exhaust air adapter	●	●	●	●	●	●	●	—
Can be used as mains supply unit	●	●	●	●	●	●	●	●
Test mark	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE, e-approved (EMC/automotive directive)	CE
Type of protection	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	equivalent to IP 21	—
Optional extra: standard remote control 901-RC	●	●	●	●	●	●	●	
Size (mm)	65 x 110 x 25	65 x 110 x 25	65 x 110 x 25	65 x 110 x 25	65 x 110 x 25	65 x 110 x 25	65 x 110 x 25	
Cable/lead (m)	5	5	5	5	5	5	5	
Optional extra: Temperature sensor TF-500	●	●	●	●	●	●	●	
Cable/lead (m)	5	5	5	5	5	5	5	

IU charging converters	WAECO PerfectCharge 3.16 DC 08	DC 20	DC 40
Ref. No.	DC1212-08	DC1212-20	DC1212-40
Input voltage	12 volts DC	12 volts DC	12 volts DC
Inputvoltage range	8 – 16 volts DC	8 – 16 volts DC	8 – 16 volts DC
Output current (A)	8	20	40
Output voltage (volts DC)	14.2 ±0.1	14.2 ±0.1	14.2 ±0.1
Energy efficiency up to (%)	87	87	87
Ripple & Noise (mA)	20	20	20
Size (W x H x D mm)	115 x 70 x 100	115 x 70 x 160	115 x 70 x 270
Weight	0.75	1.2	2.1
Electrically isolated output voltage	●	●	●
Parallel operation	●	●	●
Additional ON/OFF input	●	●	●
Test marks	e-approved (EMC/automotive directive)		

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Dometic generators

3.39

Generators	TEC 29	TEC 29LPG	TEC 30EV	TEC 40D	T 2500H	T 4000H
Ref. no.	9102900200	9102900179	9102900033	9102900201	9102900005	9102900006
Output voltage	230 volts AC ±1% (continuous)/ pure sine wave ∿	230 volts AC ±1% (continuous)/ pure sine wave ∿	230 volts AC ±1% (continuous)/ pure sine wave ∿	230 volts AC ±1% (continuous)/ pure sine wave ∿	230 volts AC ±10% (continuous)/ pure sine wave ∿	230 volts AC ±10% (continuous)/ pure sine wave ∿
Total distortion factor (%)	1	1	1	5	5	5
Frequency (Hz)	50 ±1%	50 ±1%	50 ±1%	50 ±1%	50 ±5%	50 ±5%
Max. starting current (A)	33	33	33	45	24	41
Continuous output (watts)	2600	2600	2500	3500	2000	3500
Peak power (watts)	2900	2900	2900	3900	2200	3800
Engine output (kW (PS))	4.0 (5.5)	4.0 (5.5)	3.3 (4.5)	4.7 (6.4)	4.0 (5.5)	6.6 (9.0)
Operating mode/fuel	Normal unleaded ROZ 91 petrol	Gas; LPG containing at least 60 % of propane	Diesel	Diesel	Normal unleaded ROZ 91 petrol	Normal unleaded ROZ 91 petrol
Power consumption	max. 1.2 l/h	max. 1.0 kg/h	up to 0.7 l	up to 1.4 l	up to 1.2 l	up to 2.3 l
Sound level at 7 metres (dBA)	54 – 59	54 – 59	60	64	60	62
Guaranteed sound level (dBA)	86	86	84	89	86	89
Size (W x H x D mm)	480 x 290 x 385	480 x 290 x 385	465 x 465 x 466	765 x 457 x 467	530 x 290 x 385	660 x 355 x 480
Width with suspension (mm)	580	580	572	765	640	775
Housing finish	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Weight (kg)	44	44	70	96,5	50	102
Auto-start function	●	●	●	●	—	—
12-volt output for battery charging	●	●	●	●	● with optional charging regulator	● with optional charging regulator
Automatic low-oil cut-off	●	●	●	●	●	●
Electrical starter	●	●	●	●	●	●
Short circuit protection	●	●	●	●	●	●
Soundproofed	●	●	●	●	●	●
Parallel operation	●	●	●	●	—	—
Operation via external control panel	●	●	●	●	●	●
Alarm functions	●	●	●	●	—	—
Variable generator speed	●	●	●	●	—	—
Test marks	CE, E13	CE, E13	CE, E13	CE, E24	CE, E3	CE, E3
Compatible with Dometic air conditioners						
FreshLight	●	●	●	●	●	●
CA 1000		●	●	●	●	●
B 1100 S	●	●	●	●	●	●
B 1500 S	●	●	●	●	●	●
B 1600 PLUS	●	●	●	●	●	●
B 2200	●	●	●	●	●	●
B 2600	●	●	●	●	—	●
B 3200	●	●	●	●	—	●
HB 2500	●	●	●	●	—	●

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